

Digital Video Recorder User Manual

Copyright Statement

This manual is designed to provide instruction on how to use the Stand alone DVR developed by our company. Information of this manual has been carefully designed and arranged, and also checked for accuracy before publication; however, no guarantee is given as to the correctness of the contents in print and depiction. Corrections will be made as necessary in subsequent editions for the benefit of our customers. No guarantee or other hints in any form about the content or usage of this manual is announced. Also, the information contained in this document is subject to change without any previous notice by function upgrade or addition.

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Before Starting Your DVR Operation

This document is a basic manual for the DVR users.

This manual describes the appearance of products, how to operate, how to configure the system program, and how to use the system. Before using DVR, user should read the contents of this user manual, and then deal with the product considering the precautions defined in the manual.

To open the DVR case and touch the inner parts for corrective maintenance, user should contact the place where he/she purchased the products to get the help from expert.

In addition, if there is any question for use or any damage on the product, please contact with the supplier who he/she purchased the products from.

Precautions for safety

1. Precautions for installation

Do not install it on a place that is exposed directly to the sunshine or contains lots of heat such as near a heating apparatus.

Do not install it on a place where there is severe vibration, much humidity or soot.

Install the product on a well-ventilated place.

Install the product on a flat floor.

The operating temperature range is 0°C~55°C.

The operating humidity is 20%~90%.

2. Precautions for use

1. Confirm that the DVR power supply input switch is positioned correctly for the local voltage before connecting and powering on the unit.

2. Follow local rules for grounding the DVR and associated equipment.

3. Confirm proper hard drive installation.

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Chapter 1

1.1 The product summary

This equipment is a digital surveillance product, which uses an embedded processor and embedded operating systems, combined with the field of the latest IT technologies, such as video and audio compression / decompression, high-capacity hard disk recording, TCP / IP network technologies, the code embedded in FLASH, making the system more stable. This equipment can be used in banking, telecommunications, Electricity sector, transport, residential, factories, warehouses, water conservancy facilities and other areas or departments of the Security System.

1.2 Product Specification

Model	Characteristics
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4chs	4 chess video input, 1 chess audio input, D1 preview resolution, SATA HDD supported, USB flash drive, DVD-RW drive, remote backup supported, mouse operation and IR controller operation supported, VGA output supported.
8chs	8 chess video input, 1 chs audio input, D1 preview resolution, SATA HDD supported, USB flash drive, DVD-RW drive, remote backup supported, mouse operation and IR controller operation supported, VGA output supported.
16chs	16 chs video input, 4 chs audio input, D1 preview resolution, SATA HDD supported, USB flash drive, DVD-RW drive, remote backup supported, mouse operation and IR controller operation supported, VGA output supported.

Main features:

1. H.264 video compression algorithm, low power consumption, etc.
2. Linux RTOS, good network transmission performance, high stability.
3. User-friendly design, mouse, panel, and IR controller operation supported.
4. SATA HDD supported, support large capacity HDD with 1.5T.
5. Support motion detection, synchronously monitor.
6. USB flash drive backup, DVD-RW drive backup, remote backup through network.
7. Manual record, timing record, alarm record.
8. Multi-plex: Support preview, playback, backup, network transmission simultaneously.
9. Support multi-channel playback (Max: 4chs); search by time, event, channel, log and so on.
10. Support VGA output, monitor output

Video specification:

Item No	4chs	8chs	16chs
Language Support	Chinese, English, Japanese, Russian, Portuguese, Spanish, Italian, France, Germany		
Video Input	4chs	8chs	16chs
Video Output	1 VGA output, 1 TV output (RCA or BNC connector), 1Vp-p, 75Ω.		
Frame rate	25f/ch (PAL, SECAM); 30f/ch (NTSC)(adjustable)		
Compression Algorithm	H.264		
Display resolution	PAL: 720x576 (D1); NTSC: 720x480 (D1)		
Playback Resolution	PAL: 352*288(CIF) NTSC: 352*240(CIF)		
Video output bit rates	32kbps-512kbps		
Video control	6 levels(adjustable)		
Screen Split	1,4	1,4,9	1,4,9,12,16
Recording mode	Manual, schedule, alarm, motion detection		
Storage	Local or from remote site		
Playback mode	Search by time, event, channel, log		
Motion detection	16*16 detection area for each channel, sensitivity can be adjustable		
Local playback	1 or 4chs		
Video Backup	Through network, USB port, SATA port		

Audio specification:

Compression Algorithm	G.726 ADPCM		
Audio Input	1ch	1ch	4chs

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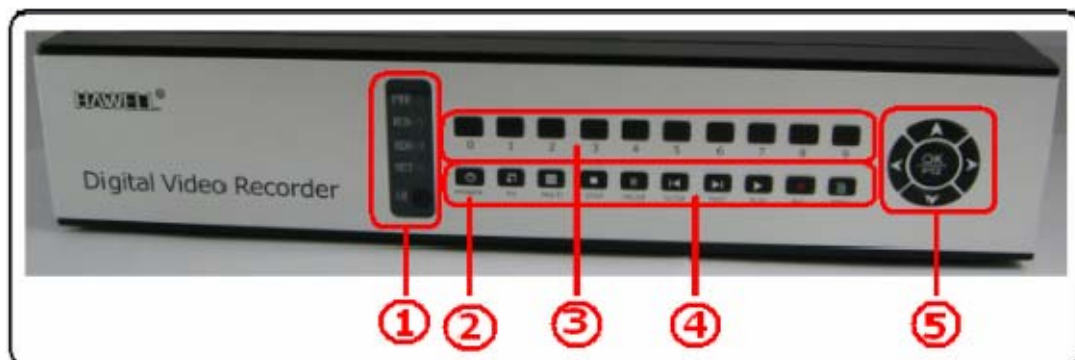
Audio Output	1 ch audio output, BNC, 2Vp-p, 600Ω
Two way talk	1ch
Output sampling rate	8KHz
Sample size	16bit

Working environment:

Network Port	1 pc 10/100M RJ45 port		
Alarm input	No	4chs	16chs
Alarm output	No	1ch	1ch
PTZ	RS485 port		
HDD port	2pcs SATA port (Max: 1.5TB for each HDD)		
USB port	1pc USB 2.0 port; 1pc USB1.1 port		
Voltage	DC12V 5A		
Working Temperature	0℃~+50℃		
Working Humidity	10%~90%		
Power Consumption	< 48W		
Dimension	350(L)*320(W)*75mm(H)		
N.W	2.0KGS(Without HDD)	2.2KGS(Without HDD)	2.4KGS(Without HDD)

Chapter 2 Product Structure

2.1 Front Panel



1, Indicator light

2, Turn on/off

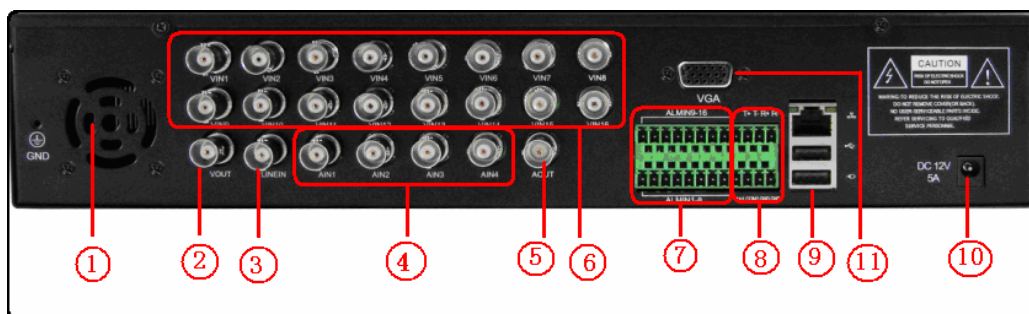
3, Digital button

4, Function key

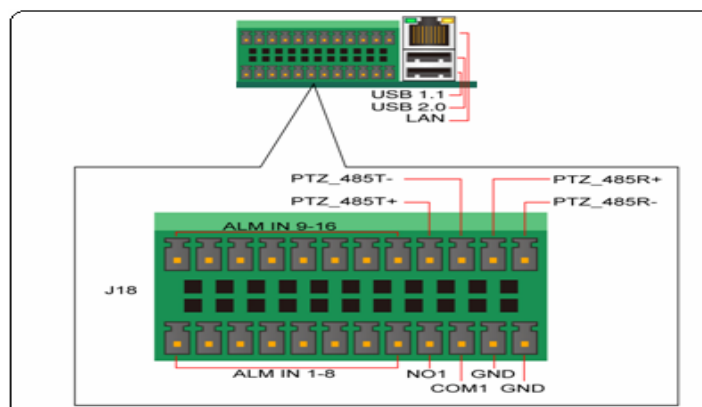
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5, Direction, Ok, PTZ button

2.2 Back Panel



- | | | | |
|--------------------------------------|----------------------|-------------------------|---------------------|
| 1, Fan | 2, Video Output | 3, Talk-back connector. | 4, Audio input |
| 5, Audio Output | 6, Video Input | 7, Alarm input | 8, RS485, alarm out |
| 9 Network Port, Mouse port, USB Port | 10, Power connector. | 11, VGA output | |



2.3 Remote controller



DEV No: Set same number as the device ID, press OK to save

(Note: On the condition that: there are more than 1pc device in one area, each device should be given a unique device number; otherwise, and the remote controller may control multiple devices simultaneity.

CLEAR: Clear all area when user set video shield or motion detection area.

Instruction about buttons:

FN: Switch button, can change input type, including numbers, capitalization, small letter, punctuation, and Chinese words typing.

1, 2, 3, 4, 5, 6, 7, 8, 9, 0: Number button

MULT: Multi-screen switch; **MENU:** Press to enter menu interface.

SLOW: Fast Backward; **PAUSE:** Playback pauses.

FAST: Fast Forward; **REC:** Manual record

PLAY: Playback recorded file; **STOP:** Stop this function or Return.

OK/PTZ: Confirm or PTZ function; **Direction key**

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2.4 Video Format

The system supports two types of Video format: PAL and NTSC, which can be switched by the JS1 jumper on the main board.



PAL



NTSC

(Remark: User needs to open the cover of DVR to change the different format, so we suggest user select the correct format while installing HDD)

Chapter 3 Operation

3.1 Turn on/off

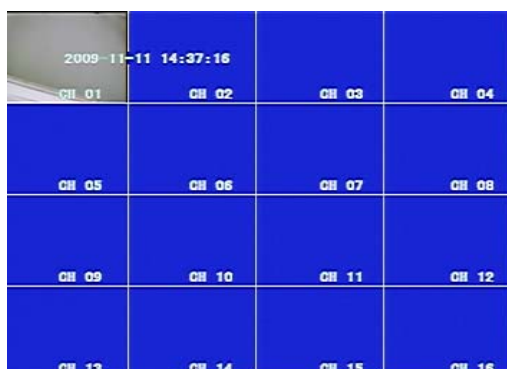


Before turning on the device, please make sure AC voltage connect with DVR match the DVR requirements, and ensure that grounding part of plug for DVR has a good connection with ground.

After connecting power ,DVR will trun on and the power light will trun to red,the RUN light will flash to indicate it is normal working.

Press the [power] button for 5 seconds to trun off the dvr,and the power light will trun to red; press this button again, the DVR will restart.

3.2 Preview



After start-up system, the screen has live view area, which shows date, time and channels name on the screen, User can select to display a single particular channel by pressing the corresponding 【Numbers】 buttons 1~16 or press the left button of mouse ,and then press “MULTI” on panel or left button of mouse to return

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3.3 On Screen Menu

3.3.1 Main menu



[Main menu/Menu]: Enter main menu

[Play back/Play]: Enter playback interface



[Record/REC]: Enter the Manual Record



[PTZ]: Enter the PTZ control interface

3.3.2 Tools

There are following tools for main menu:

(1)Check box:  Provide 2 selections, tick it to make it effective, or not tick; press [OK/Enter], or **【↑】**、**【↓】**, or click left button of mouse to choose.

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(2)Select Box: According to the system options for the contents of the drop-down box, select the target content, use 【↑】、【↓】 or left button of mouse to choose

For Example: In the interface of search menu, “Store to”



(3)List box: Display the query results of information in the list; user can select one of the option operations provide in the list accordingly.

Index	Ch	Start Time	Size	Select
1	0	2009-11-11 17:03:37	108729k	
2	0	2009-11-11 16:23:07	34463k	
3	1	2009-11-11 16:23:06	43659k	
4	1	2009-11-11 15:10:43	19007k	
5	1	2009-11-11 15:10:43	78443k	
6	1	2009-11-11 14:28:27	8591k	
7	6	2009-11-11 14:28:27	1909k	

For Example: In the list of playback searching, Press [OK/Enter] or left button of mouse to play the recorded file; press right button of mouse to

choose/cancel the recorded file.

(4)Edit box: Input the title

For Example: In system configuration, user can input digital, English letter or Chinese at the edit box of device name.

- User can switch input types by the [FN] or click with mouse, which include digital, case letters, punctuation marks, and Chinese input method.
- Press 【←】、【→】 or mouse to choose edit box, then press “Enter” or mouse, which will show the screen keyboard, and user can choose the character by the direction key-press or mouse.
- User can delete character with 【SHIFT】 or right button of mouse
- After input completely, press 【MENU】 or 【STOP】 to exit.

(5)Button: For the implementation of a specific function or set to the next menu.

3.3.3 Exit Menu

Press 【MENU】 or 【STOP】 to exit, and switch to multi screen

3.4 Main Menu

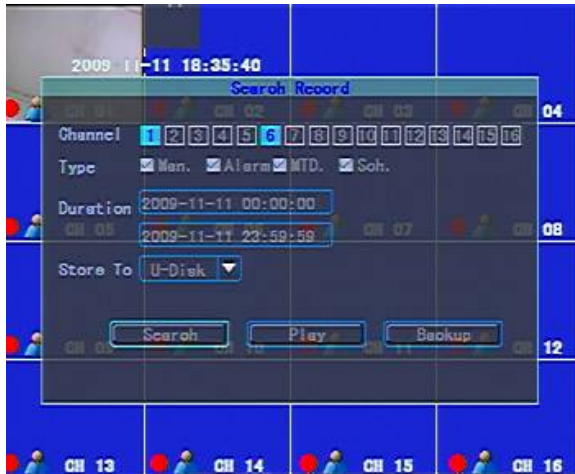


After pressing [menu] or right button of mouse, the main menu will pop-up, which is composed with 3 parts

1. Preview channel select
2. Shortcut of PTZ playback, record, and Audio
3. Main menu: Setup, tools, Log, Shutdown

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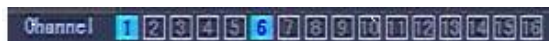
3.5 Playback



Click “Playback” to enter the “Search Record” interface

3.5.1 Search

Channel:



Selecting the channel which you

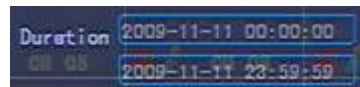
want to search, press check box to select

Type: Selecting the type of video search.



“√”means it is ticked; “□”means: not ticked

Duration: Input the duration you want to



search.

Store To: Choose the device to backup video in



select box.

After setting the above-mentioned search criteria, press “Search”, the system will begin to search video files, and then shows the results on the screen.

(Remark: *If more than 4000 video files match with the search criteria, then the system only shows the latest 4000 video files. If you want to find the updated files, please modify the search criteria.***)**

Play: Play the recorded file which is within the selected start and end time.

Backup: Backup all the recorded files which are within the selected start and end time to the appointed storage device.

3.5.2 Search Results



After user press the “search” button, the results window will pop-up

Playback: Choose the file by the button on panel or mouse, then press [enter] or left button of mouse

Turn Page: Click “Pre” and “Next” to turn page, input the page number, and press “Goto”

Back up: Choose the backup file with mouse or [FN] button on panel, then select store device,

after press “Backup”, the recorded file will store to it

Cancel: Return to previous menu

3.5.3 Playback tools

Press “Playback” to enter the playback interface

Toolbar: The tool is showing on the bottom of the screen, and which can hide/display by click right mouse button, when user choose multi-screen playback together and hide toolbar, the channel could be enlarge/reduce by click left mouse button

▶: Play; ■: Stop playing; ⏸: Pause the current play, or stop the current pause.

⏮: In the pause model, play with single frame by every click

⏭: Slow forward, click to decrease speed; ⏯: Fast forward, click to increase speed

⏮ or ⏭: Backward or forward for 10%; 🔊 or 🔇: Turn on/off sound.

Press “STOP” or ■ to exit play back; Without pressing Stop or ■, the system will auto exit the playback interface after all the selected file is played.



Status of playback: at the right bottom of playback interface, there is a toolbar to indicate the play speed, elapsed played time, total time for video file

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3.6 Manual Record

Press “Record” in the main menu or [REC] to enter manual record interface



Manual record instruction:

It's composed with following parts:

Channel: Correspond with the channel

Status: “●” Not recording “●” recording, and if there is a circle around it, “●” means: it is transmitting data through network.

Start/stop all: which can start or stop recording with all channel

Exit: Exit to the preview interface

(Remark: If user set manual record, user must stop it manually, or it will keep recording.)

3.7 PTZ



Press “PTZ” to enter the PTZ setting interface

The main operations of PTZ: Directional Control; Horizontal Scan; Zooming Control; Adjust the Focus; Adjust Iris; Speed Control

Switch: preset points; start / stop automatic cruise; wiper control; lighting control; auxiliary equipment control

(Remark: The preset point must set before using it, the cruise path setting can refer to 3.8.2.8, if the cruise path number is less than 2 digits, user should add “0” to the number to get 2 digits)

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3.8 Main Menu



Press main menu to enter this interface which includes: Tools, Setup, Log and Shutdown

3.8.1 Management Tools



It includes HDD management, User, Factory Set, Clear alarm, Upgrade, Times, System information

3.8.1.1 HDD Management

SATA: This shows HDD information; “√” means HDD detection successful, “X” means undetected



Format: Choose the disk in selection box, and which will show the information of the disk, press “Format”, one confirmation page appears, click confirm, after format completely, the HDD can be used normally

(Remark: User must stop recording before formatting HDD)

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3.8.2.2 User Management

Add, delete or modify user.(Only Admin has authorization for all setting)



Add user: Enter “User” interface, press “Add”

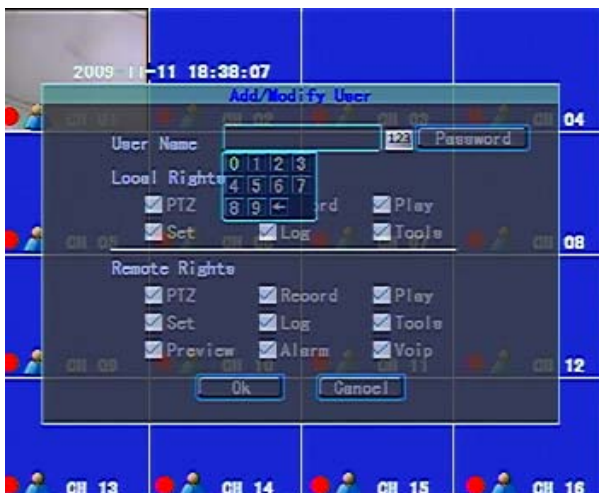
1. Input a user name to the edit box

(Remark: please refer to 3.3.2 (4) edit box)

2, Set the password: The password is less than 6 numbers

3, Set the authorization for the new user, tick it to enable it

4, Save the new user by click OK.



Modify User

Enter the “user management” interface, and choose a user from the list, then press “modify” or right click to enter the interface of modify user

(Remark: Only “Admin” can modify other user’s information)

Delete User

Enter the “user management” interface, and choose a user from the list, then press delete, this action will delete this user from system after pressing “OK”

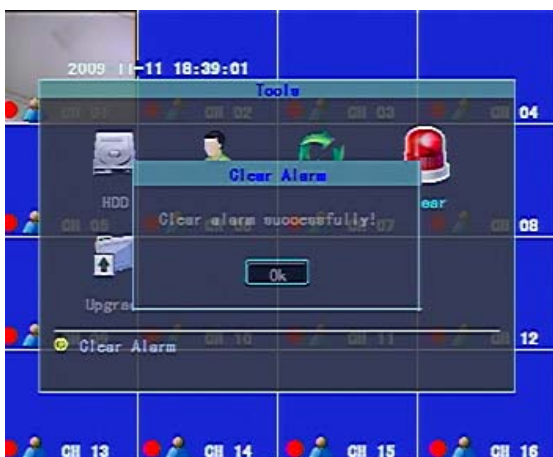


3.8.1.3 Default



Reset the configuration to default, the system will restart

3.8.1.4 Clear alarm



Manually clear all alarm information. It will show “Clear alarm successfully”, press ok to return to former interface

3.8.1.5 Upgrade



Choose the target to upgrade, and then choose the method: USB or FTP

USB method: Copy the upgrade files to the root directory of the U-disk, then click ok to upgrade system

FTP method: Put the upgrade files to the root directory of the FTP; input the IP address of FTP server, then press OK to upgrade. After upgrading completely, system will reboot.

Remark: The upgrade file name must set as “mainboard.bin” (main board upgrade) or

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"panel.bin" (panel upgrade). Don't power off it when the system is upgrading

3.8.1.6 Date & Time



Input the correct date and time, and press OK to save

3.8.1.7 System information



Shows the information of name, model and firmware version

3.8.2 Setup

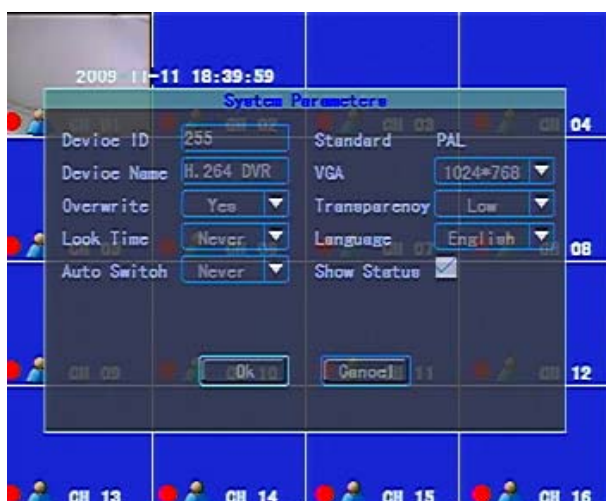


Press "setup" in the main menu to enter the Setup interface

3.8.2.1 System

Device ID: To control the DVR device, the remote control should have the same device ID as DVR device (Please refer to 2.3 on how to set the device ID for remote controller)

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Device Name: Device name is generally defined as the regional name of the monitoring area, which will be easy to find while remote viewing. The default is: "NetDVR".

Overwrite: tick "YES", the system will auto delete the old recorded file when HDD is full

Lock Time: user can select never or set the time. Once user set the time, during the period of set time, if there is no operation, the system will log off the current user, user need to re-type the user name and password to enter into the system

Auto switch: User can set cycle time for single-channel preview.



Standard: This device support 2 standard: PAL and NTSC, the default standard is PAL (Please refer to Setting Method in 2.4.)

VGA: User can adjust the resolution of VGA

Transparency: User can set the levels to adjust the transparency between the preview screen and menu.

(Language: The menu language can be changed according to the requirement of user; the default language is English or Chinese.)

Show Status: if tick "✓", preview screen will display record mode, status, and motion detection icon

“”:Recording(All modes);  Schedule recording

“”: Manual record  : motion detect status; “”: Motion detection record

After setting, press "OK" to save and exit, or press "cancel" to exit, but above set will not be saved

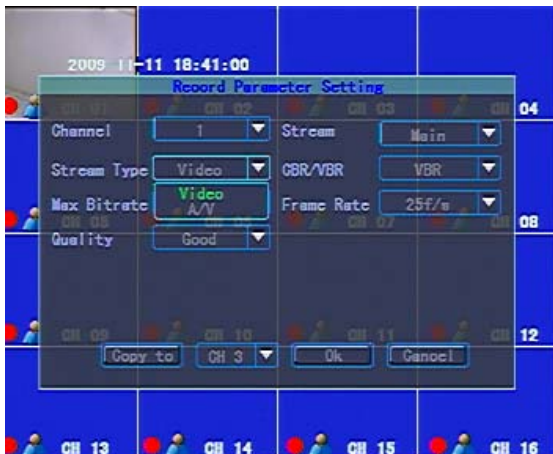
3.8.2.2 Record

Click "Record" on the main menu to enter record setting

Channel: Choose a channel to set

Stream: Choose the stream: main or sub

Stream Type: Select "Video": the system will only record video; Select "Composite", the system will record video and audio at the same time when system is recording



CBR (Constants Bit Rate): the video stream is based on user-defined bit rate and video frame rate

VBR (Variable Bit Rate): video stream is based on user-defined record quality and video frame rate, but the bit rate will be adjusted by system automatically according to the environment.

Bit rate: The higher bit rate, the better record quality; and the hard disk space occupied are bigger.

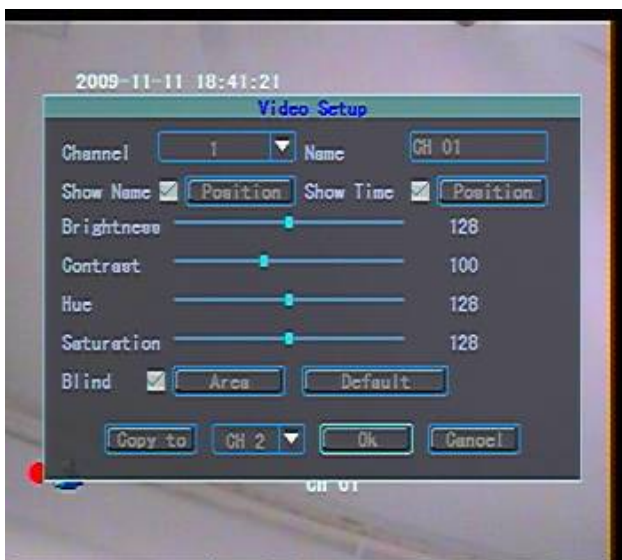
Frame: The higher frame, the better record fluency; and the hard disk space occupied are bigger.

Quality: five levels: best, better, good, normal, bad, worse. Select "best", the video quality will be the best.

Copy to: Copy the same setting to other channel.

After setting completely, Press "OK" to save and exit, or press "cancel" to exit but the setting will not be saved.

3.8.2.3 Video



Channel: Choose a channel to set

Name: Input a channel name to the edit box

Show Name : "√" means show name,

"□" means hide channel name. Press

"Position" to enter setup interface, then

choose a position to show channel name,

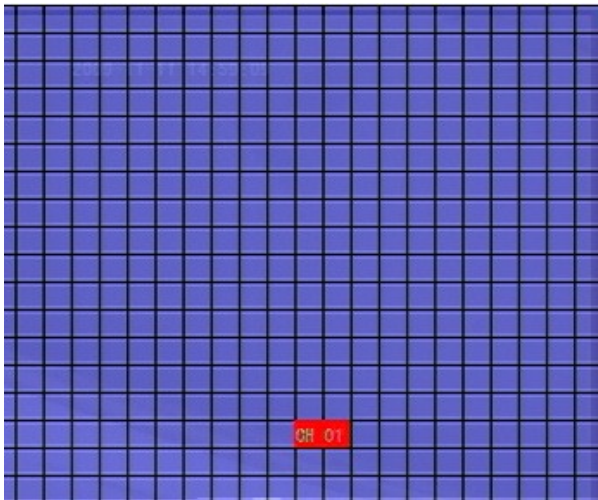
and press "ENTER" to save and exit, or

press "STOP" to exit but the setting will not be saved

Image parameter: Using the panel 【↑】、【↓】 or mouse to set brightness, contrast, hue, saturation

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Default: Restore the image parameter to the system default setting



Blind: tick it to activate "Area" button, then press "area" to enter setup interface.

Set blind area: After enter the area interface, there will pop-up a yellow box, it is blind set-box.

Area creation: Switch the yellow box to red (Red-box is effective area) by [FN] button on panel, then press direction key or mouse to adjust the size of area, 4 areas can be set at

MAX, After setting completely, Press "ENTER" to save and exit, or press "STOP" to exit but the setting will not be saved.

Part clear: Switch the yellow box to black (Black-box is clear area), then press direction key or mouse to clear area, After setting completely, Press "ENTER" to save and exit, or press "STOP" to exit but the setting will not be saved.

All clear: Press [menu] to clear all area.

Copy to: Copy the same setting to other channels

(Remark: The channel name can't be copied)

After setting completely, Press "OK" to save and exit, or press "cancel" to exit but the setting will not be saved.

3.8.2.4 Alarm Input

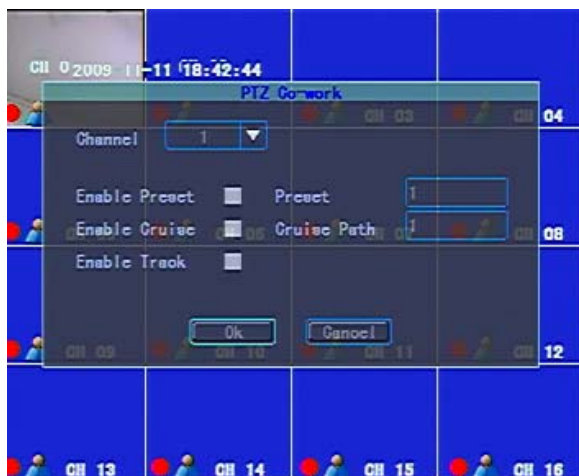


Click "Alarm In" to enter this interface.

Input channel: Click select-box to choose target channel

Alarm Type: Set to "Low Volt" or "High Volt" according to the type of alarm equipment.

Detect: Set whether the alarm input signal is detected.



PTZ: Click “PTZ” to enter “PTZ Go-work”

interface, user can set preset, cruise, track from here. And the setting method please refers to

Delay: Set the delay time of processing after alarming

Buzzer: Whether to activate buzzer alarm

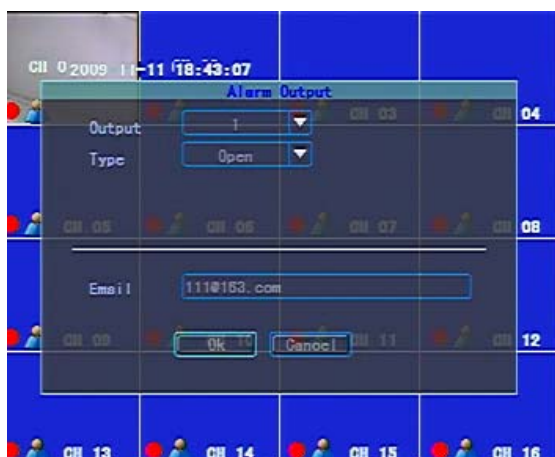
Rec.CH: Set the recording channel after activating alarm equipment

Alarm Out: Set alarm out channel

Copy to: Copy setting to other channels.

After setting completely, Press "OK" to save and exit, or press "cancel" to exit but the setting will not be saved.

3.8.2.5 Alarm Out



Output channel: Click select-box to choose target channel

Alarm Type: Open or close

3.8.2.6 Record Schedule



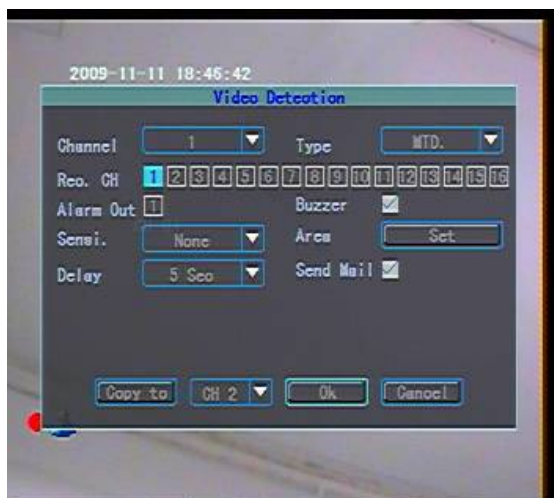
Channel: Click select-box to choose target channel.

Week: Choose a day to set, “all” means all days
Record type and Time: User can set different in 4 periods SCH (red), MTD (yellow), and ALARM (green) “√”:enable; “□”: inefficacy. Which will show the time statues in the below.

Copy to: Copy the same setting to other channels.

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

3.8.2.7 Motion Detection



Channel: Click select-box to choose target channel.

Type: MTD, Video loss, Blind

Rec.ch: Appoint channel to record after detection.

Alarm Out: Set alarm out channel

Buzzer: Whether to activate buzzer alarm, “√” means enable; “□” means inefficacy

Delay: Set the delay time of processing after detection

Area: Set motion detect area, which refer to setting method in 3.8.2.3

Sense: Set the sensitivity of detection area, “None” means the above parameters are invalid.

3.8.2.8 PTZ Configuration



Channel: Click select-box to choose target channel.

Baud rate: Choose a baud rate match with the connected PTZ

Data Bit: Choose a data bit match with the connected PTZ

Stop Bit: Choose a stop bit match with the connected PTZ

Checksum: Choose a check value match with the connected PTZ

Flow Ctrl: It must keep the same with PTZ flow control setting

Protocol: It must keep the same with PTZ flow control setting

Decoder: Input the specified decoder address.

Preset Setting: Preset point is pre-set and remembers the camera position, focal length, aperture and zoom.



The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



Cruise points at max.

ADD Preset: Input a preset point in edit-box (1-128), and then adjust the camera target location with direction key. Press "Set" to save

Delete: Input a preset point, then press "Delete" to delete that point.

Cruise Path Number: Cruise path is that: camera run with a path which has several cruise points in a certain speed. A cruise include Cruise point, Preset Point, Dwell time, Cruise speed, and which can support 16



Track setting: It is used to record a pre-defined path with irregular movement of camera, enter the

Copy to: Copy the same setting to other channels.

After setting completely, Press "OK" to save and exit, or press "cancel" to exit but doesn't save.

3.8.2.9 Network

Press "Network" to get following interface.



The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



LAN Setting

MAC: Display the MAC address of device.

IP: The IP address must be unique and can't have any conflicts with other host or workstation within the same network

Mask: Sub netting net-segments

Gateway: To achieve communication between the different network segments

Port: Port number must be greater than or

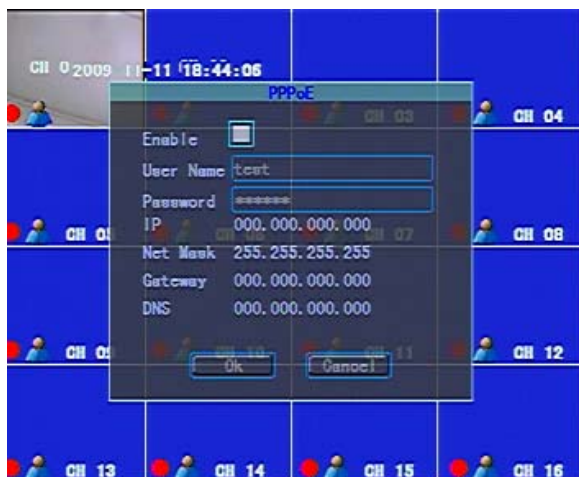
equal 2000

DNS: after connecting with network by PPPOE protocol, the system will get a dynamic IP address.

DHCP: Enable to automatic acquisition of IP

Http Port: The port for IE remote viewing, the default is 80.

PPPoE Configuration



Enable: tick it to enable the Dial-Up Network function with PPPoE.

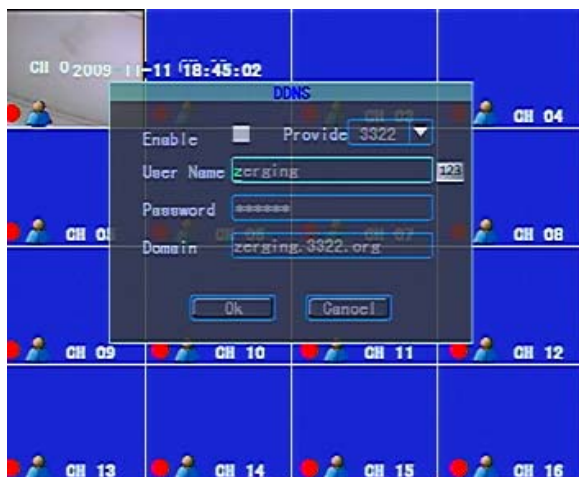
User name/Password: Input the user name and password which is provided by ISP.

DDNS Configuration

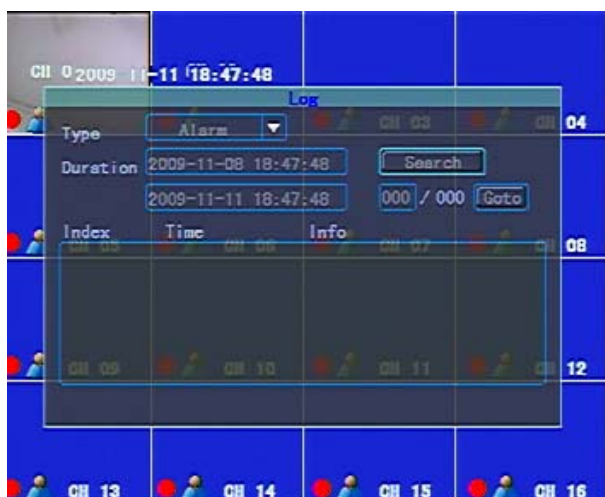
Enable: tick it to enable DDNS function

Choose a domain provider; input the information of user name, password and domain

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



name in the edit-box.



3.9 Log

Type: Choose the type of log which user wants to search.

Duration: Input duration in edit-box, then press "search" button, the log information will show in the list, User can turn page with input page number or roll middle button of mouse.



3.10 Shutdown

Logout: Exit the current user; if user wants to continue to use the DVR, user need to re-login system

Restart: confirm this action, the system will restart.

Shutdown: confirm this action, the system will shutdown.

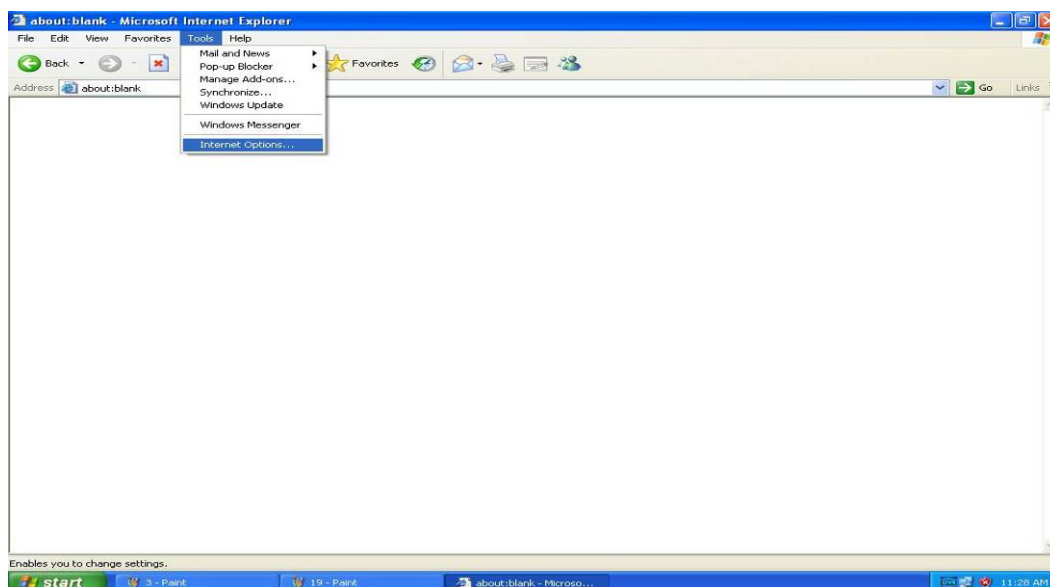
Chapter 4 Remote viewing through IE

IE setting and install

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

Remark: user should set the security of IE options before remote view via IE. This can be set by following steps:

Step 1: Run an Internet Explorer (IE) browser, click **tool** menu, and select **Internet options...**



Step 2: Then it will pop up **Internet options** window:



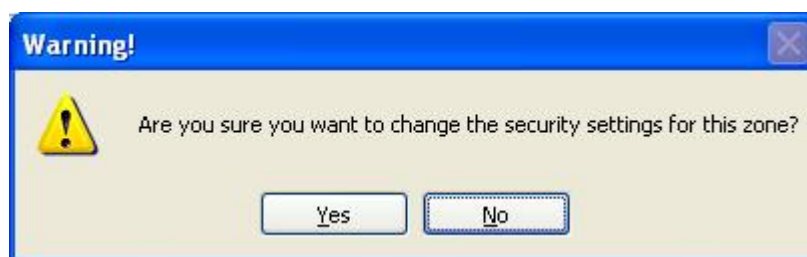
Step 3: Select **Security** option, and click **Internet** icon, and click on **Custom Level...** button, and then it will pop up the following setting window:

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



Enable all the **ActiveX** controls and plug-ins here.

Step 4. Then click **OK** button, and then click **Yes** button to confirm and save the setting.



IE client interface instruction,

Operation of IE-client

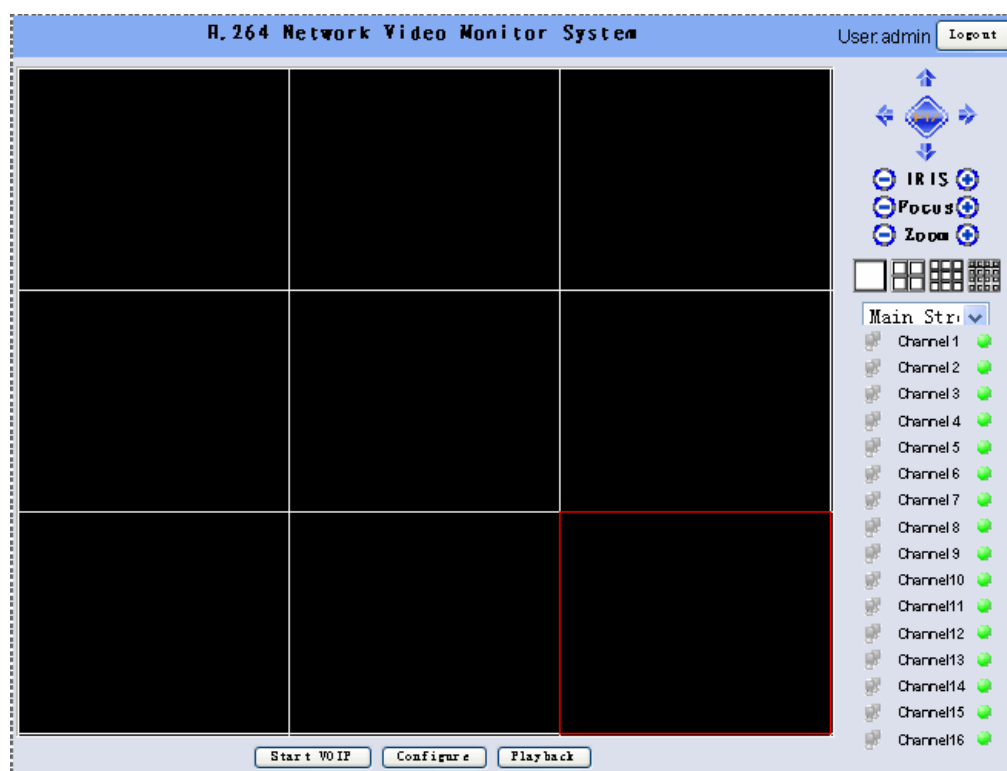
- (1), Input the IP address of the DVR, and downloads the plug-in from the pop-up window. If plug-in is not installed automatically, please download package and install it manually.
- (2), After installing the plug-in, it will pops up following icon, input the user name and password, then press "OK" to login

User Name	<input type="text" value="admin"/>
Password	<input type="password"/>
Network	<input type="text" value="Lan"/> ▼
<input type="button" value="OK"/> <input type="button" value="CANCEL"/>	

If plugin is not installed automatically, please download the [package](#) and install it manually.

4.1 GUI

The main screen includes: Logout, Preview, PTZ control button, Stream, Channel management, VOIP, Configure, Playback



Open preview channel: Press channel name to open the target channel

Channel 1 is on, Channel 1 is off.

Preview mode: Press to switch the signal-preview or Multi-preview.

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

4.2. Video Stream

This device support dual-stream, User can choose the stream type to preview from the select box.

4.3. PTZ



: Direction key of PTZ, Press to control the direction of PTZ camera

Iris: User can increase and reduce the aperture of PTZ camera

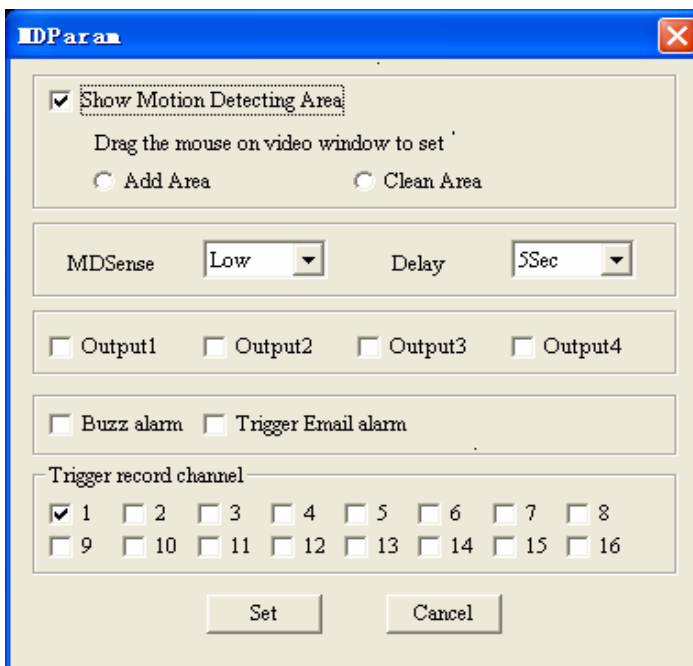
Focus. to adjust the focus of PTZ camera

Zoom: to zoom in or zoom out

4.4. Advanced Setting

After open the preview channel, click the right button of mouse to open the Advanced Settings window in the corresponding channel

OpenAudio	Open/Close Audio: Press this button to open or close audio of that channel.
Snapshot	Snapshot: take snapshot of current view screen and save it as picture format.
Record	Record: Enable the recording of that channel and save it.
PTZ Option	PTZ options: Set the PTZ preset point, cruise path
OSD Option	OSD Option: Set the position of channel name and time, adjust it by dragging mouse, and press OK to save.
MDParam	
Pic Adjust	



MD Param: tick “show motion detecting area “to set the area of motion detection.

Add Area: Press the left mouse button to set on screen.

Clear Area: Clear all area
Set the sensitivity and delay time of the motion detect.

Pic Adjust: Adjust the Brightness, Contrast, Hue and Saturation of the picture.

4.5 VOIP Control

Presses “Start VOIP” enable the intercom function

4.6 Configuration

4.6.1 Server Para

The 'Settings' dialog box, 'ServerParam' tab, displays the 'ServerSettingInfo' section. It includes fields for DeviceName (H.264 DVR), Mac Addr (00:11:22:22:11:22), DeviceID (255), Overwrite (Yes), Lock Time (Never), Preview Mode (None), Auto Switch (Never), Standard (PAL), VGA Resolution (1280*1024), Transparency (Opaque), Language (English), State Display (checked), AlarmInNum (16), AlarmOutNum (4), DeviceModel (SVR7316), and Version (V_1_2_9 build Oct 30 2009). The 'Network' section includes IP Addr (168.168.18.75), Port (8630), NetMask (255.255.255.0), Gateway (168.168.18.1), DNS (203.96.134.133), HTTP Port (8081), PPPoE (unchecked), PPPoE User (test), PPPoE Password (***), DHCP (checked), DDNS (checked), DDNS Service (3322), DDNS Domain (duanyuan.3322.org), DDNS User (duanyuan), and DDNS Password (*****). Buttons for OK, Cancel, and Quit are at the bottom.

In this setting interface, respectively setting the related parameters of the server, Set Methods and Notes please refer to the system configuration, info and network of server instructions

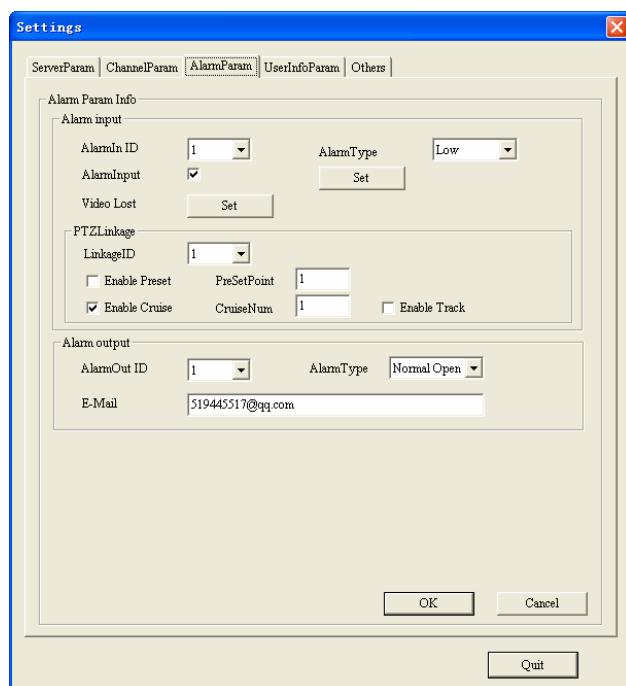
4.6.2 Channel Para

The 'Settings' dialog box, 'ChannelParam' tab, displays the 'Channel Param Info' section. It includes Channel (1) and ChnName (CH 01). The 'Image Param' section includes Show Chn Name (checked) and Show Time (checked). The 'Record Param' section includes Stream Type (Video), Bit Type (VBR), Bit Rate (512Kbps), Quality (Normal), FrameRate (2), Pre Rec (unchecked), Schedule Set (checked), SubStream (1), FrameRate (2), and Bit Rate (256Kbps). The 'PTZ Param' section includes Baudrate (2400), Data Bit (8), Stop Bit (1), Check (No), Control (No), Protocol (Pelco-d), and Decoder (1-1024). Buttons for OK, Cancel, and Quit are at the bottom.

In this setting interface, respectively setting the related parameters of the server, Set Methods and Notes please refer to the image setting, record and PTZ of server instructions

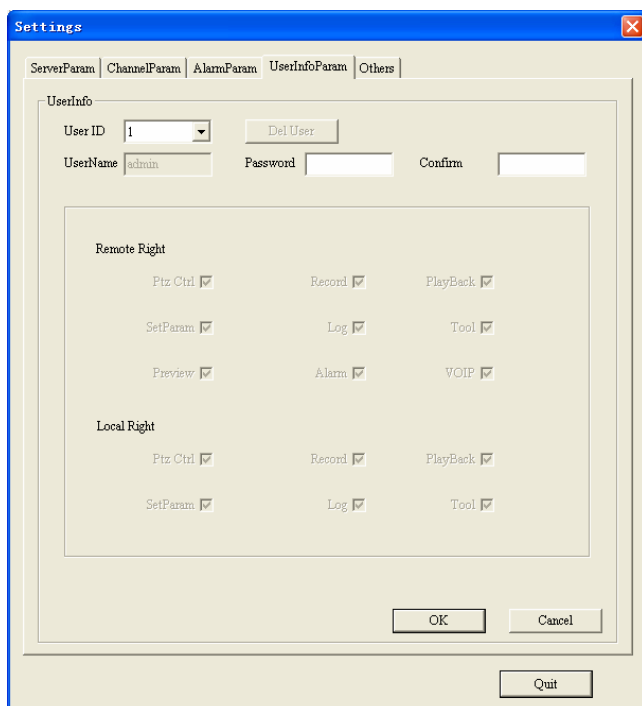
4.6.3 Alarm

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



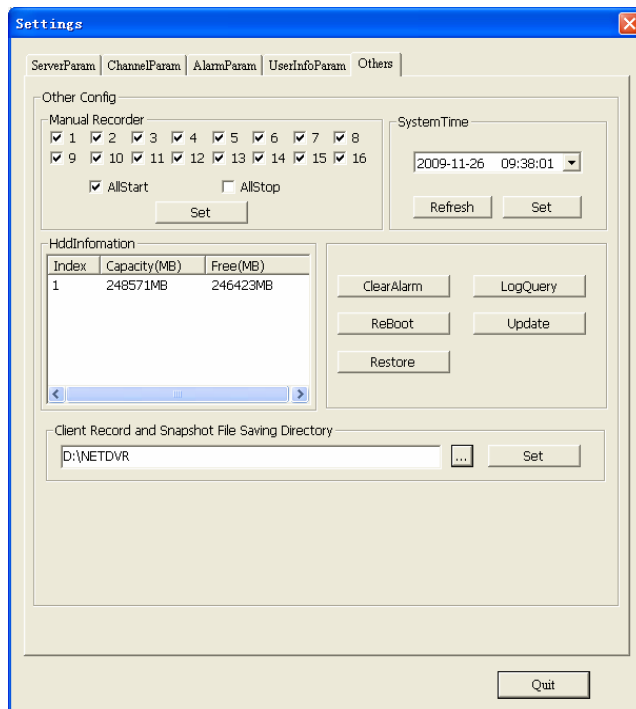
In this setting interface, respectively setting the related parameters of the server, Set Methods and Notes please refer to Alarm in, Alarm out of server instructions

4.6.4 User Information



Set the user information of server. The set Methods and Notes please refer to user management of server instructions.

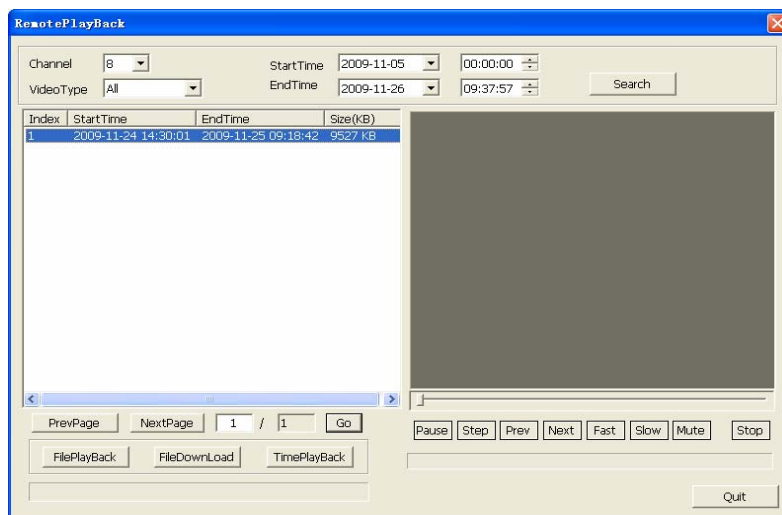
4.6.5 Others



In this setting interface, respectively setting the related parameters of the server, Set Methods and Notes please refer to manual record, time and date, HDD management, clear alarm, Log search, upgrade, reset and shutdown of server instructions

Client record and snapshot five saving direction: Set the path for saving image and recorded file

4.7 Remote Playback



Set the channel name, video type, recorded time, and then press "Search" The results will show in the list (4000 results at max).then turn page with the page number.

File playback: Choose the target file, Press "File playback" or double click with the file to play

Time record: The recorded file will play with the start time which is set by user.

File download: Choose the target files, Press "file download", the progress bar will shows the download progress

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

Chapter 5: Client software

5.1 Hardware Requirement

OS: windows 2000 or above

CPU: Inter Pentium 4 2.4G or above

RAM: 512M or above

Resolution of monitor: 1024*768 or above

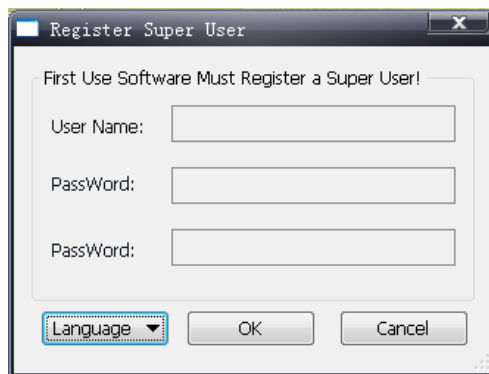
Graphic card: Support hardware-acceleration

5.2 Operation the client software

5.2.1 Run and login

Double click “TLClient.exe” file under client software folder to start to run it.

If it is the first time to use this client software, user must register a super user as below:



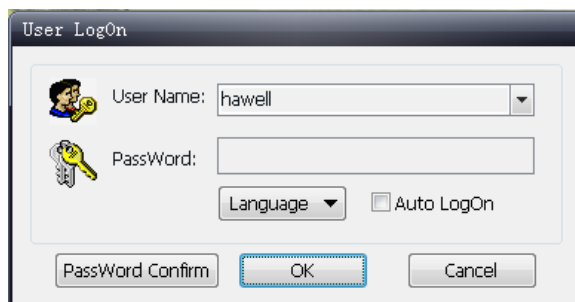
User name and password: ensure user name and password have 6 characters at least. Password should be typed twice to avoid any mistake, then press “OK”, it will show login succeed:



5.2.2 User Login

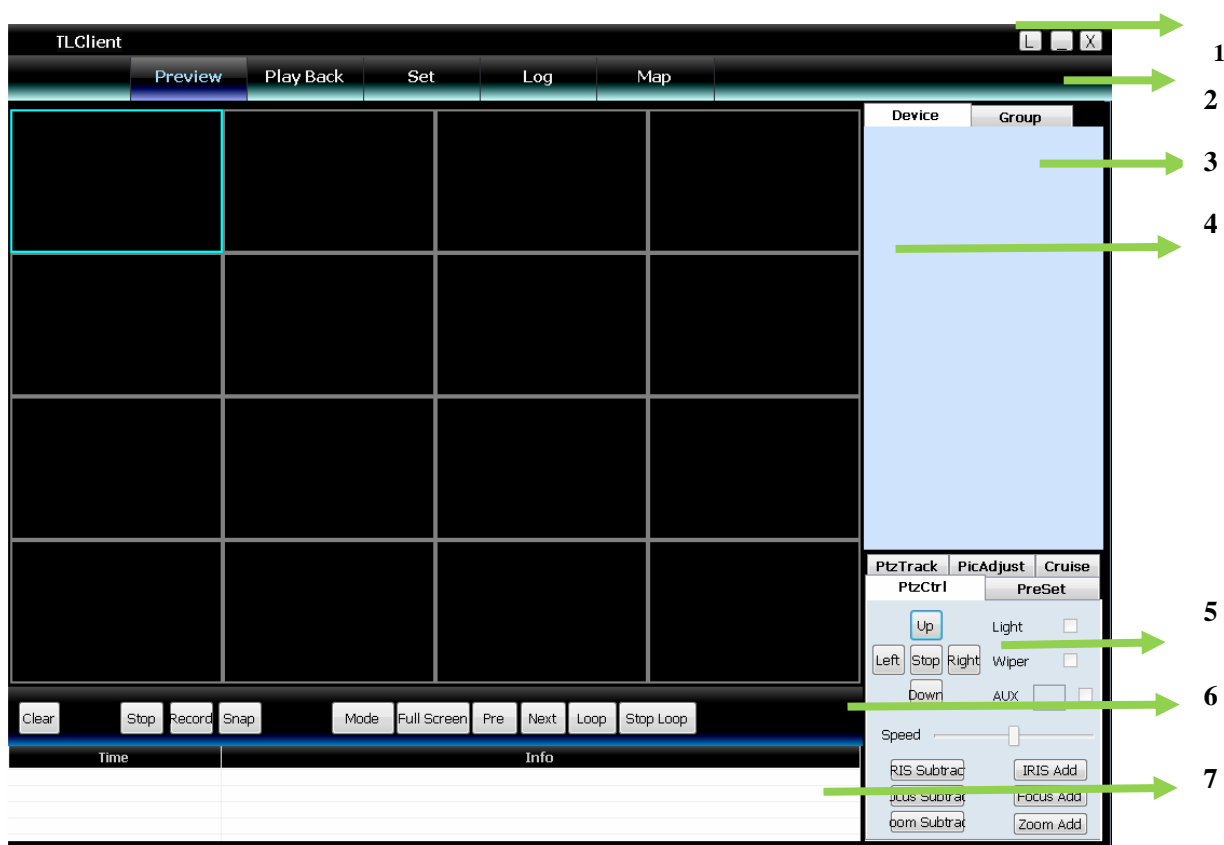
Choose a use name, input the password. (If user chooses “Auto Logon”,

The logon window won’t appear next time)



5.2.3 Software Interface Instruction

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



1). System Button: Lock, Minimize and Close button

2). Label: Which include each functional module of software

Preview: Shows a real-time preview of device.

Playback: Local and Remote Playback.

Set: Device Management, Server Setting and Client setting

Log: Local and Remote Log searching.

Map: Electronic map

3).Device tree: Shows the devices and Groups which user have added to the management.

4). Preview windows: Shows the real-time preview on the screen

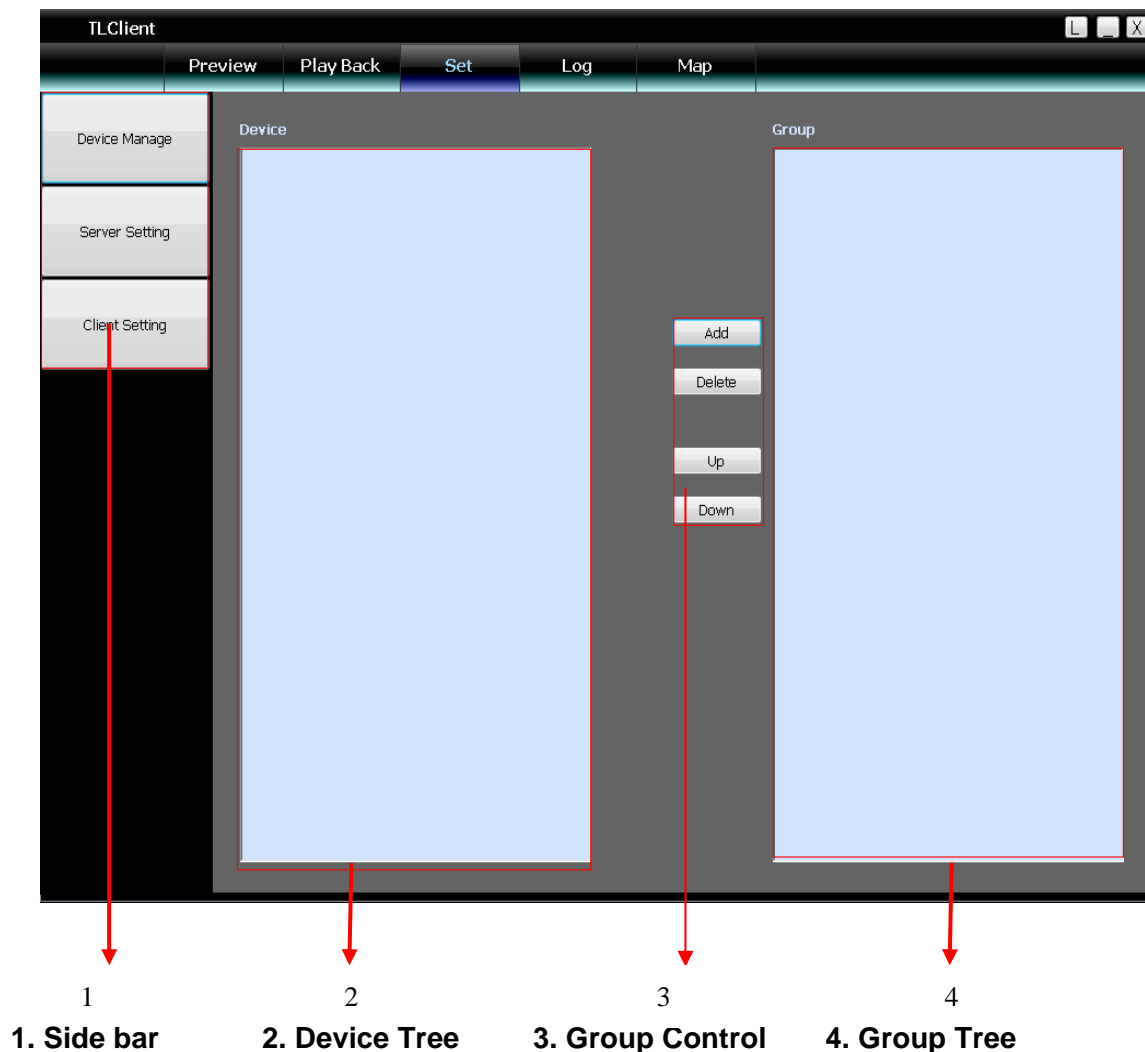
5). PTZ: PTZ control and Image adjust

6). Preview control Label: Clear Or stop preview, record, snap, mode-switch, Loop setting

7). List of alarm information.

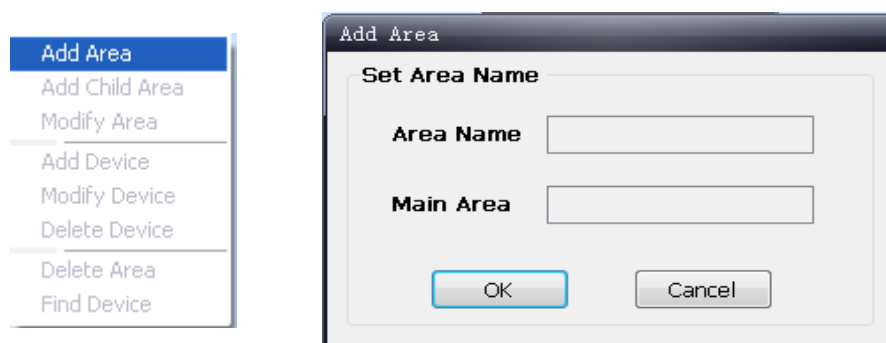
5.3 Device Management

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



5.3.1 Device Tree configuration

The default list is blank; user can add areas by click on the blank area.



Input the area name and press “OK” to save the area. If it is the first time to add the area, the main area doesn’t exist; the main area name is blank. After adding area completely, use right mouse to click the area, user can add sub area and device. Or use right mouse to click the area name, user can add or delete area from there.

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

(Remark: if the area you want to delete includes other area, device or channels, after delete the area, the included other area, device or channels will be deleted too. Once any channels is within this area is recording or preview, it wills pop-up warning information)

5.3.2. Add Device Manually

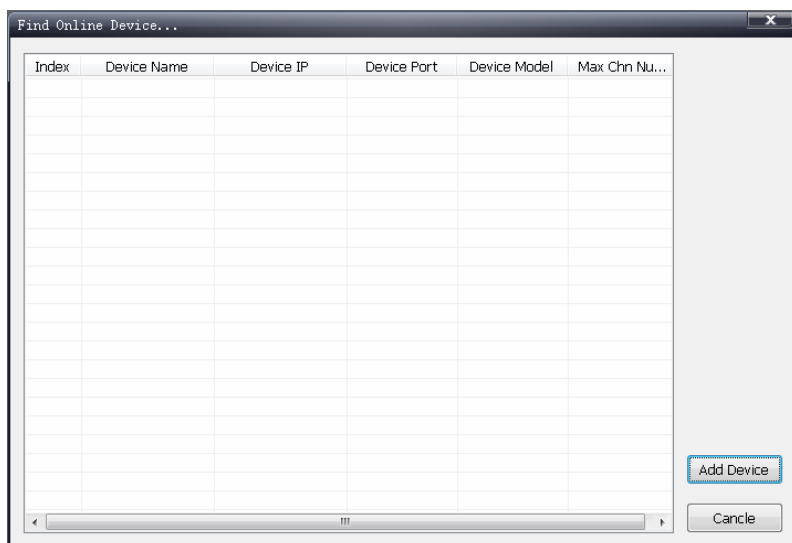
Use right mouse to click the area name, choose “Add Device”

Options	Instructions
Device name	Name of device, support user-defined
Device address	IP address or domain name of device
Port	Port of device
Channel	Amount of channel, input as matter of fact
User name	User name of device
User	Password of user name
In Area	Area name of the device in

5.3.3 Search on-line Device within LAN

Click right mouse on any area/sub area, choose “Find Device” in the menu list to search on-line device in the same LAN

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

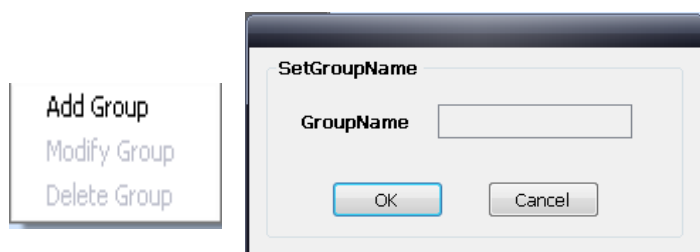


Choose a device, and then press “Add Device” button.

A system information box will pop-up; Change the device name, make sure the device name not repeated, then inputs user name and password.

5.3.4 Group Setting

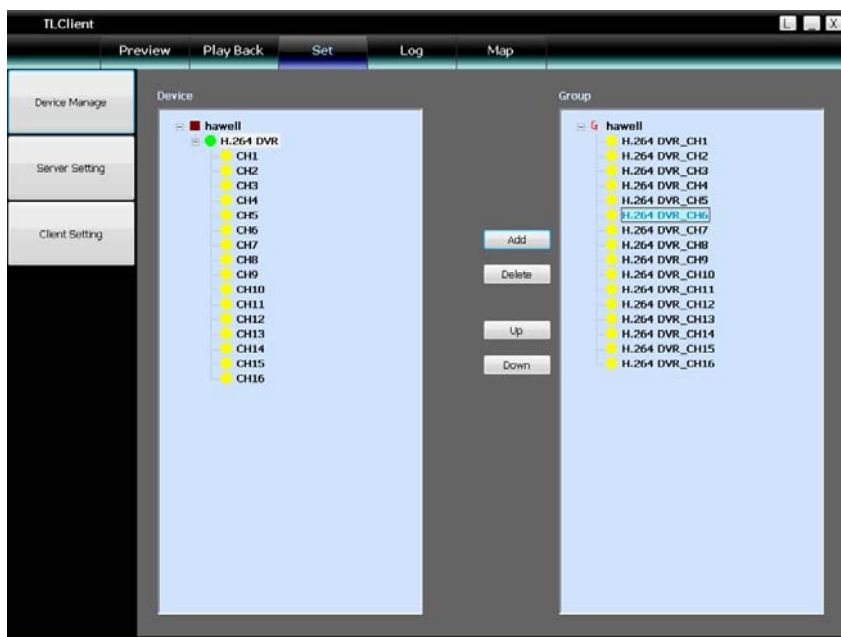
Click right mouse to show a list, and then choose “Add Group”



Input group name, press “OK” to save.

After group is added successful, add channels to the group. Choose a channel from right list, Click “Add” in middle, that channel will add to the left list of the group

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



The channel name will show as “Device name_Channel name” in group.

After that channel added successful, it will automatic switching to next channel.

Choose a device from right list, Click “Add” in middle, all channels of that device will add to the left list of the group.

After that device added successful, It will auto switch to next device.

Press “UP” and “down” to adjust the channel or device position of the list.

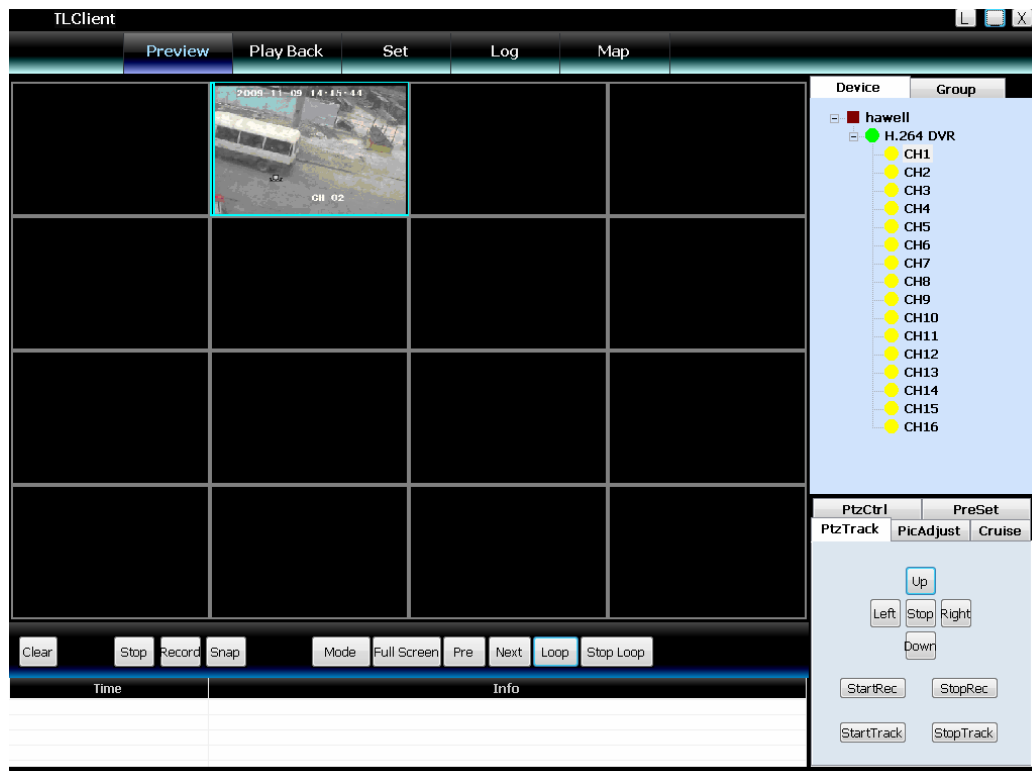
Choose a channel, and then press “delete” to delete that channel, after that channel delete successful, It will automatic switching to next channel.

Choose a device in right list, Press “delete”, warning information will pops-up, press “OK”, all channels under this device will be deleted.

(Remark: one channel can not be added to the same group repeatedly, but can be added to different groups)

5.4 Video Preview

5.4.1 Non-loop Preview.



1). Double click to start preview

Click a play window in play panel, the sides will turn to blue.

Double click device or channel in the list, that channel will play in the blue side window.

2). Drag to start preview

Drag a change or a device in the list to the preview area, that channel will broadcast in this window.

3). Stop Preview

Right mouse click the play window, a menu will pop-up, choose "stop preview", or press "stop" in the preview control label.

4). Loop Preview

Directly drag the device or channel to play area to start loop preview, User can set the loop time or whether starts loop preview

5.4.2 Preview Control

Stop: Stop previewing of currently selected window

Record: Press to begin or stop recording of currently selected window

Snap: Save the snapshot of currently selected window

5.4.3 Audio Control

Press right mouse on currently selected window, Choose "Open Sounds", it will open the audio preview of that channel, Press again to close audio preview.

Note: This can only support one audio output, if you open another audio; the previous audio will be turned off.

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

5.4.4 Other Functions

Window Zoom: Double click the preview window in Multi-screen mode will zoom window, click again to return.

Screen mode: with mode of Multi-screen and signal screen

Full Screen: Hidden the menu to make the preview window maximization

Pre, next: In the current window mode, displays the remaining windows. A total of 64 Preview windows,

The display amount of every page depends on screen modes

5.5 PTZ Control

1) PTZ Control: Control PTZ rotation direction, speed, aperture, zoom, focus, light, wiper and other auxiliary functions.

2) Track: Set and control PTZ track

3) Pre-set setting: Set the pre-set of PTZ

4) Cruise: Set the cruise point and cruise path.

5) Pic adjusts: Set the Brightness, Contrast, Hue and Saturation

5.6 Record and playback

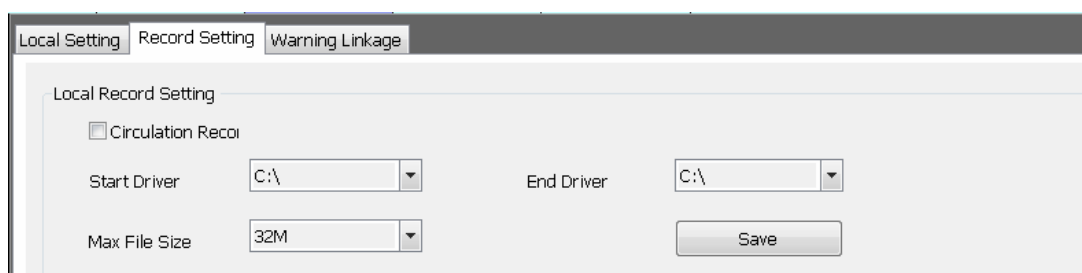
5.6.1 Client Local Record

There are 2 modes of record: Manual Record and schedule record

Manual Record: Press "record" in preview control label to start recording

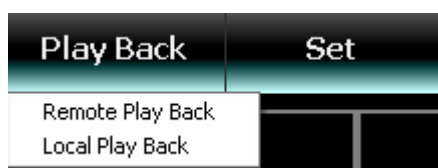
Schedule: Set the record time in configuration interface

All the save path of record file and package size can be set in configuration interface.



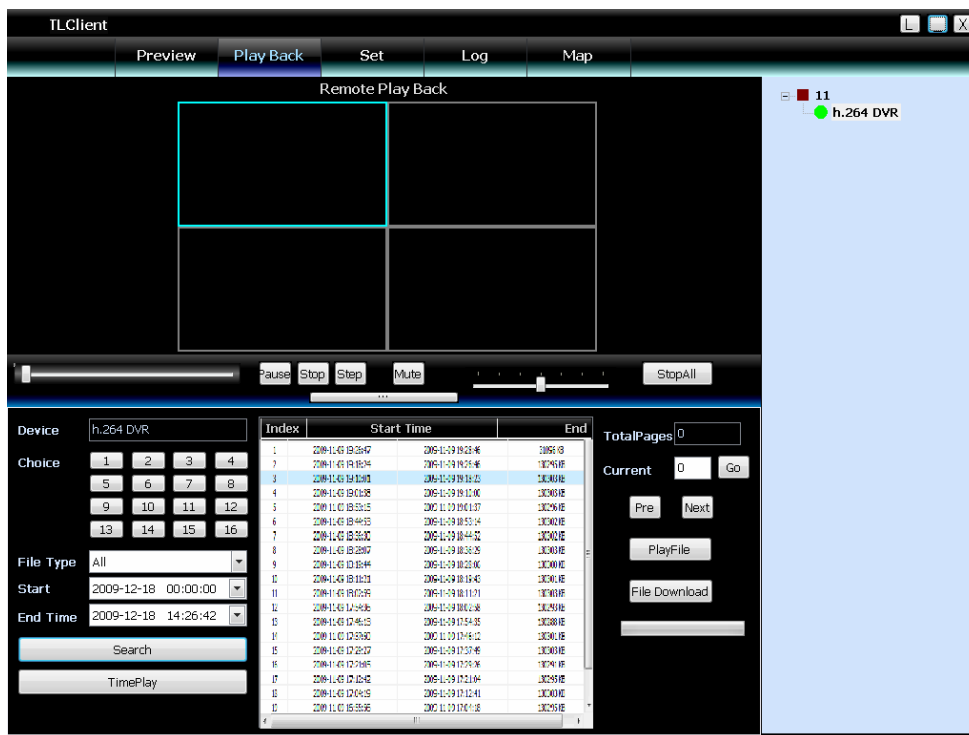
5.6.2 Remote Playback

Click "Playback". And then choose "Remote playback" to enter remote playback interface.



1). Remote Recorded Files Searching

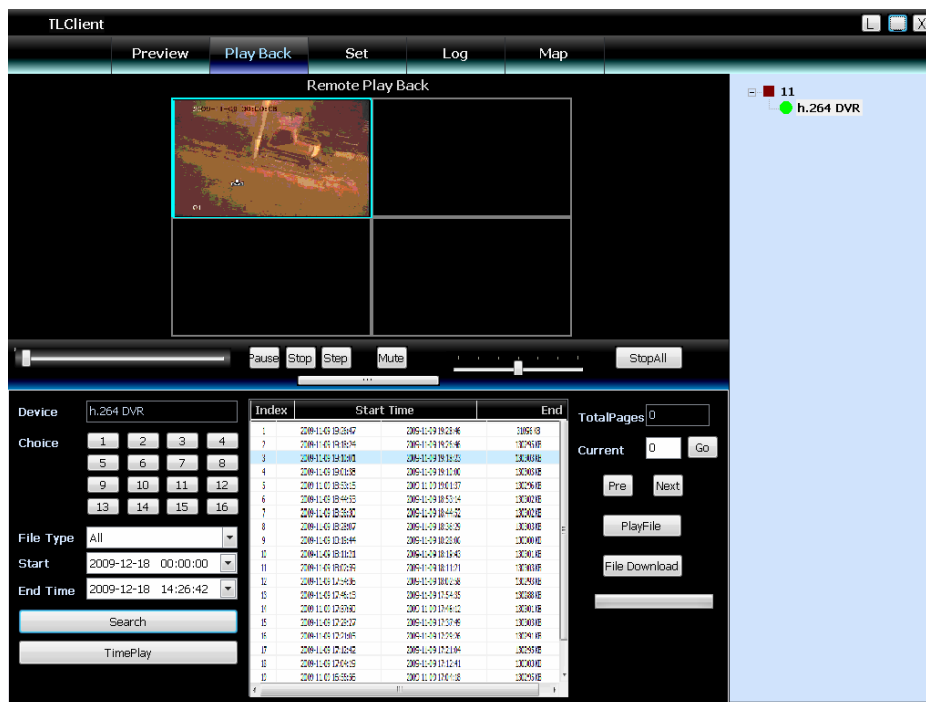
The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.



Choose a device in the list, and then select a channel, set the type and time, then click “Search”, it will show results of searching. User can turn page in the right side.

2). Remote Playback

Choose a window for playback, Pitch on recorded file in the list, double click or click “Play file” button. Set query, click on “Time Play”, it will playback according to chronological.



(Remark: time play support 4 channels at Max, It will close all channels playback)

3). Remote Download

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

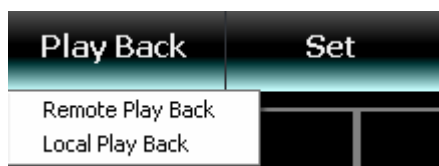
Select the file in the search results, click on the right side of the "File Download" to start the file download, it will show progress bar in below.



Select the window to control, playback control bar shows the speed and progress of the current window, user can drag the progress bar and pause, stop snapshot, click "Stop All" to stop all playback.

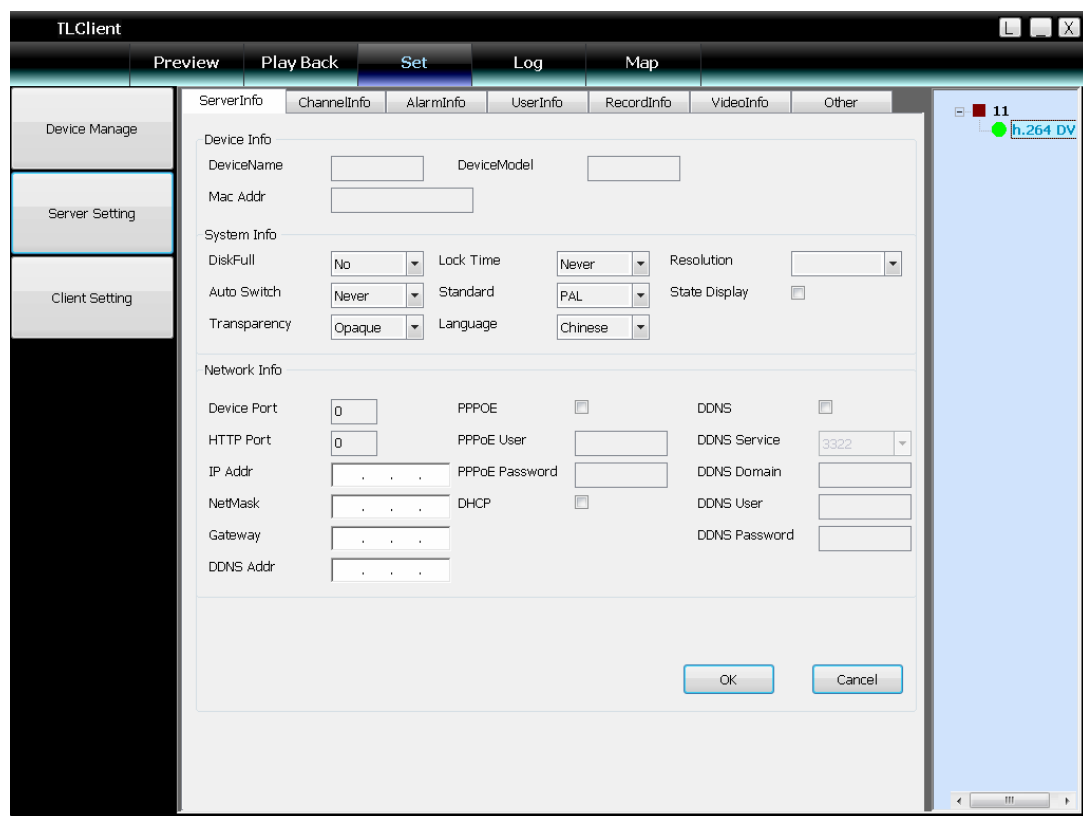
4) Local Playback

Click "Playback". And then choose "Local Playback" to enter local playback interface.



Local playback has the same operation with the remote, but the recorded files can't be downloaded, the file types can't be selected.

5.7 Server Setting



Click "Setting"- "Server Setting" to enter server setting. Choose a device to set.

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

After Modify completely, Click “OK” to save.

5.7.1 System Information

ServerInfo ChannelInfo AlarmInfo UserInfo RecordInfo VideoInfo Other

Device Info
 DeviceName DeviceModel
 Mac Addr

System Info
 DiskFull Lock Time Resolution
 Auto Switch Standard State Display ☐
 Transparency Language

Network Info
 Device Port PPPoE ☐ DNS ☐
 HTTP Port PPPoE User DNS Service
 IP Addr PPPoE Password DNS Domain
 NetMask DHCP ☐ DNS User
 Gateway DNS Password
 DNS Addr

OK Cancel

5.7.2 Channel Information

Channel Param
 Channel ChnName

Image Param
 Show Name ☐ Show Time ☐ Blind Alarm ☐

Record Param
 Bit Rate Steam Type Bit Type
 Pre Rec Quality FrameRate

SubStream Param
 Bit Rate Steam Type Bit Type
 Quality FrameRate Resolution

PTZ Param
 Baudrate Data Bit Stop Bit
 Check Control Protocol
 DecoderAddr

Copy To Other Channel
☐ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08
☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

OK Cancel

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

5.7.3 Alarm Information

AlarmIn Info			
AlarmIn ID	<input type="text"/>	Type	High <input type="text"/>
PTZ LinkAge			
LinkAgeID	<input type="text"/>	EnableCruise	<input type="checkbox"/>
EnableTrack	<input type="checkbox"/>	CruisePathNum	<input type="text"/>
		EnablePreset	<input type="checkbox"/>
		PresetPoint	<input type="text"/>
AlarmOut Info			
AlarmOut ID	<input type="text"/>	Type	Normal Op <input type="text"/>
Email Addr	<input type="text"/>		
Trigger AlarmOut		Trigger Info	
<input type="checkbox"/> 01	<input type="checkbox"/> 02	Email Alarm	<input type="checkbox"/>
<input type="checkbox"/> 03	<input type="checkbox"/> 04	Sound Alarm	<input type="checkbox"/>
		Delay	5s <input type="text"/>
Trigger Record Channel			
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03	<input type="checkbox"/> 04
<input type="checkbox"/> 05	<input type="checkbox"/> 06	<input type="checkbox"/> 07	<input type="checkbox"/> 08
<input type="checkbox"/> 09	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12
<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15	<input type="checkbox"/> 16
<input type="button" value="All Yes/No"/>			
Copy To Other Channel			
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03	<input type="checkbox"/> 04
<input type="checkbox"/> 05	<input type="checkbox"/> 06	<input type="checkbox"/> 07	<input type="checkbox"/> 08
<input type="checkbox"/> 09	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12
<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15	<input type="checkbox"/> 16
<input type="button" value="All Yes/No"/>			
<input type="button" value="OK"/>		<input type="button" value="Cancel"/>	

5.7.4 User Information

UserInfo			
User ID	<input type="text"/>		
UserName	<input type="text"/>	Password	<input type="text"/>
		Confirm	<input type="text"/>
Remote Right			
Ptz Ctrl	<input type="checkbox"/>	Record	<input type="checkbox"/>
SetParam	<input type="checkbox"/>	Log	<input type="checkbox"/>
Preview	<input type="checkbox"/>	Alarm	<input type="checkbox"/>
		PlayBack	<input type="checkbox"/>
		Tool	<input type="checkbox"/>
		VOIP	<input type="checkbox"/>
Local Right			
Ptz Ctrl	<input type="checkbox"/>	Record	<input type="checkbox"/>
SetParam	<input type="checkbox"/>	Log	<input type="checkbox"/>
		PlayBack	<input type="checkbox"/>
		Tool	<input type="checkbox"/>
<input type="button" value="OK"/>		<input type="button" value="Cancel"/>	<input type="button" value="Del User"/>

5.7.5 Record Information

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

Record Schedule Info

RecordChannel Day

Schedule

RecordTime	Timing	MD	Alarm
17:38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17:38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17:38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17:38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Copy To Other Week

☐ Mon ☐ Tues ☐ Wednes ☐ Thurs ☐ Fri ☐ Satur ☐ Sun

Copy To Other Channel

☐ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

5.7.6 Motion Detect Information

VideoDetection Info

Video Channel Detection Type

Trigger AlarmOut

☐ 01 ☐ 02 ☐ 03 ☐ 04

Trigger Info

Email Alarm ☐ Sound Alarm ☐

Delay Sense

Trigger Record Channel

☐ 01 ☐ 02 ☐ 03 ☐ 04 ☐ 05 ☐ 06 ☐ 07 ☐ 08 ☐ 09 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

5.7.7 Others

The manual will be changed timely without notice. If any difference with products or other data providing by different solution, please confirm with the manufacturer directly.

5.8.1 Local Setting

Loop Play

Local Record Setting

☐ Circulation Record

Start Driver: C:\ End Driver: C:\

Max File Size: 32M

Save

Set Record Planning

☐ Plan Record

☒ Recording Pattern Ti ☐ All Day Records

Device Tree: 11

	Start Time	End Time
Time Section 1	00:00	00:00
Time Section	00:00	00:00
Time Section	00:00	00:00
Time Section 4	00:00	00:00

Save

(Remark: Local configuration parameter becomes effective after restart client. Schedule record premise that there must be video preview stream)

5.8.3 Record Saving Path

Set start driver and end driver of saving path, "MAX file size" is used for confining the size of signal file.

5.8.4 Schedule Record

Select the "Plan Record" to start plan record

Select the channel for plan record from the device tree at the left side, and then set time section for it.

5.8.5 Alarm Linkage

Set the options of alarm linkage.

5.9 Log

1). Operator Log

Search Operation log of client

2). Warn Log

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Search warning log of client

3). System Log

Search System log of client

4). Remote Log

Search remote log of client

Appendix 1 Installation and Instruction

Using 12V 3A DC Power Supply, please use the standard electrical source

Keep horizontal in installation or using, avoid tilted or upside down

Don't put metal objects into the chassis to prevent electric shock

Don't put the DVR in wet or dust, or liquid splash in the DVR, as to avoid internal short circuit or fire

Keep clean and dry.

Ensure the host and chassis GND after installation (there is a GND port in the rear cover). In order to avoid video and audio signals be interfered, and to avoid the HDD be damaged by the static electricity.

Please install Thunder Protection Devices.

Ensure the HDD is connected correctly, or it won't record.

Don't cut the power or turn off the power switch when you shutdown. Or it maybe damage HDD

Don't insert/unpin the cable (video, audio, RS485) electrify, or those ports are easily damaged.

Hardware hot plug is prohibited

Make sure the voltage power supply of DVR stability, Using the stability and small interfering power input ripple.

Keep in cool and ventilated environment, don't block the fan vents.

Please use lithium batteries for motherboard, if the system time shows abnormal. Please replace the batteries with 3V lithium batteries.

Note: User must cut off the power before replace it, and please properly dispose of old batteries

Appendix 2 Alarm Connection

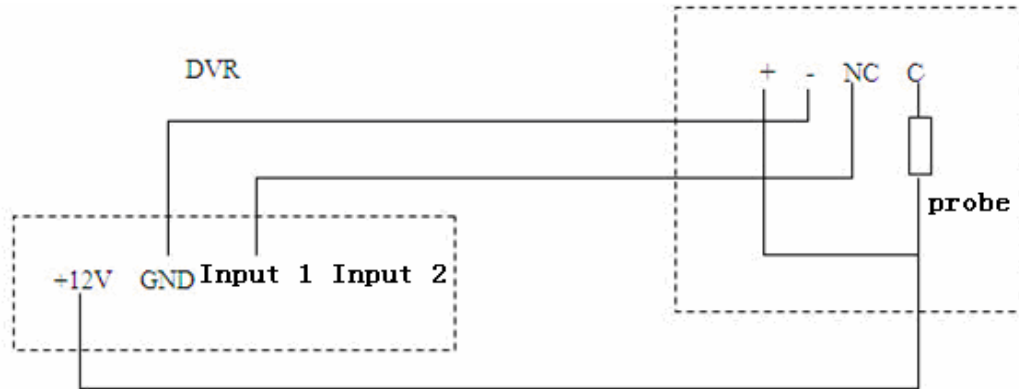
Alarm Connection Method

1. Normally Closed

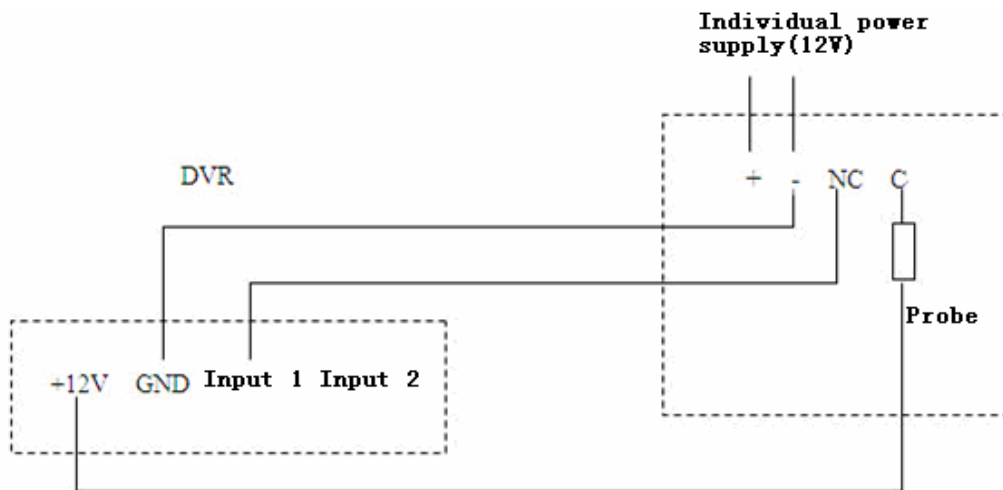
If the sensor is normally closed, and in the connected status; the output 12V voltage will go through the resistor, and then be connected to the alarm input port, which can meet the demand of the specified voltage. Once it encounter the event of alarm, the sensor will be disconnected, the output voltage will turn to "0", the alarm will be triggered.

(Remark: the power of sensor is supplied by DVR.)

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The un-used alarm input port should be unable from software. If the supplied voltage is less than 11V, it will affect the normal function of sensor and alarm. Once it happen, user should make 12V power lines much thicker or give an individual power supply for the sensor to ensure the proper work of equipment

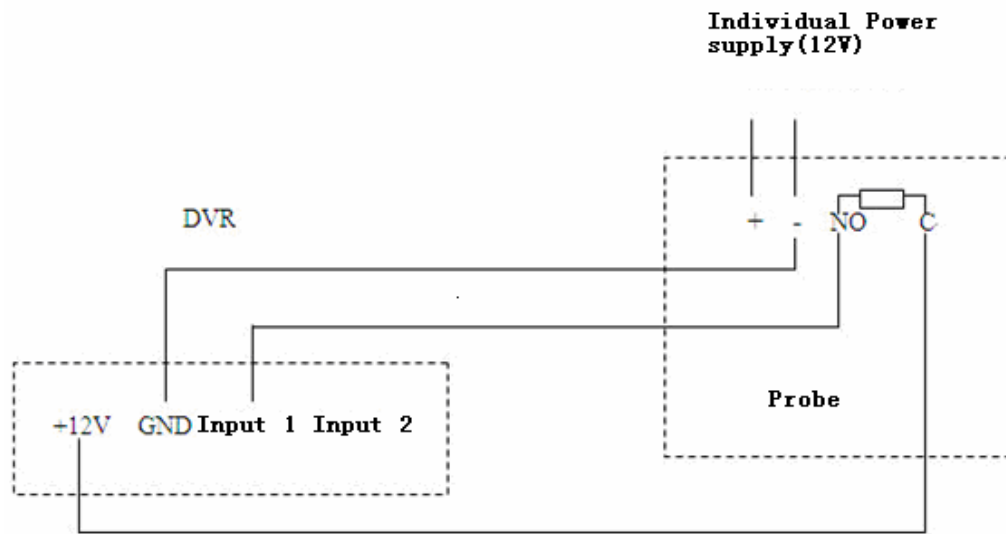


User should connect both of ends to ground for individual power supply, or there may be interference with long-distance transmission, resulting in incorrect alarm. If user connect different sensor with one alarm input port, the system can not just which one is alarming.)

2 Normally Open

If the sensor is normally open, and in disconnecting status, the 12V voltage will go through the resistor, and then connect with alarm input port; Connect the sensor with resistor, once encounter event of alarm, the 12V voltage will directly go through sensor, and then to alarm input port, the alarm will be triggered too.

(Remark: the power of sensor is supplied by the DVR)

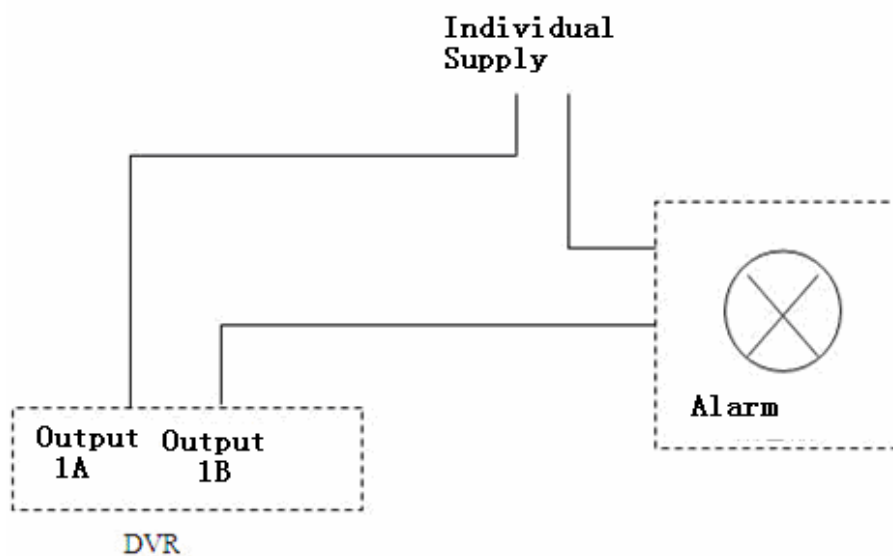


If there is a long distance between sensor and DVR, independent power supply to sensor will be better.

User should connect both of ends to ground for individual power supply, or there may be interference with long-distance transmission, resulting in incorrect alarm. If user connect different sensor with one alarm input port, the system can not just which one is alarming.)

3, Alarm Output

Alarm output is normally disconnecting status, and will be connected when alarm is triggered. It doesn't supply power, the external speakers, lights; sirens need extra power supply to work properly.

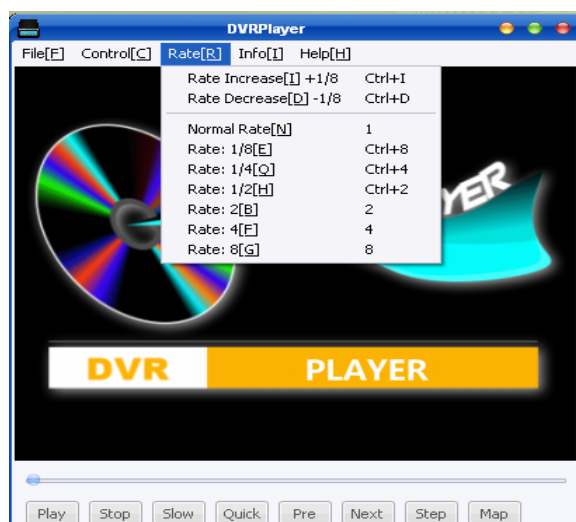


Appendix 3 Backup & Playback.

The format of backup file is .ifv, user need to use the player attached in CD to play it, which

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shows the following interface:



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Appendix 4 FAQ

1. The host is not running after connected to the power

- ①Check whether the power switch is turned on
- ②Check whether the operation of the boot is correct

2. The boot is very slow

- ①HDD errors maybe cause the DVR repeated testing the hard disk, please check the hard disk or change another one.

3. The DVR doesn't display picture.

- ①Check if the DVR is turned on. If the DVR is powered on, the power light will flash
- ②Check if the video cable is connected well

4. The video is distorted

- ① Check the video cable to see if it is well
- ② Video-line subjected to strong electrical interference, the video line cannot work together with strong electrical wire.
- ③ Check whether the camera , monitor or circuitry is aging

5.How to get the best effect of display ?

- ①Adjust the camera
- ②Adjust parameter of the display equipment
- ③Adjust the video setting from DVR

6. The image is distorted or not full of the whole screen while using computer monitor

- ①Distortion: please refer to user manual for computer monitor: adjust the window shape with Barrel, pincushion, trapezoid, parallelogram and rotating function.
- ② Adjust the Horizontal and Vertical Size of window.

7. The color displayed on monitor is different from the actual color

- ①Check cable between motherboard and GA board is connected well; please also check if the VGA cable is well
- ②Check whether thermal dissipation of device is well

8. There are mosaic while playback

- ①Please check if the video parameter for recording is too low
- ②Check the hard disk to see if there is any bad sector

9. The client software can not be installed successfully

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Please install the software above version DirectX8.1 to acceleration.

10. The video appears mosaic or freezing while remote viewing

- ① Unstable network conditions, check if the network is busy or congestion
- ② Please check whether the PC host CPU usage reach 100% while use the client

11. There is no image after connecting with network while using the client?

- ① Check whether the firewall of computer is opening. If yes, please turn off the firewall, or reduce firewall's security level.
- ② Please try to close/open the multicast of host.
- ③ Please check what of kind of graphic card is using for computer, some graphics cards are not allowed to open the image.

12. after enabling the intercom function, the system will pop up a window immediately to remind that: the intercom is finished

Check whether the computer open a firewall (especially Sky-net)

13 There are no recorded data for playback after setting manual recording.

- ① Check if the setting for search is correct. While searching, please make sure user has selected manually recording type
- ② Make sure the hard disk has been formatted into a data area before using

14. Schedule recording can not work, or there is no video data during recording time.

- ① The setting time is not correct, it should be between 00:00 to 24:00, and the starting time should be earlier than ending time
- ② The power supply was accidentally disconnected during recording time
- ③ The requested data was overwritten.
- ④ The HDD is physical damaged or has logical errors

15. The content of recorded data is not continuous.

- ① Check whether there is a power failure or abnormal voltage if user set manual record or timing record
- ② Check whether the recorded time is the same with user set before if you set alarm record.

16. There are lots of mosaics during playbacking

Please check whether there is a bad hard disk sectors. If one of logical hard disk is

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damaged, please re-format the partition on the hard disk. If there is physical damage to the hard disk, please replace the hard disk

17. The video of live viewing or playback has dithering

Please check if the video format of system setting is same as camera itself.